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ABSTRACT

This study examined the historic and current contexts regarding student participation in higher education as a step toward developing policy recommendations for improving the percentage of Alaskans going to college. There appears to be a mismatch between the workforce needs of the state and the availability of qualified Alaskans for those jobs. As the need for workers grows, projections indicate that Alaska will not enjoy a commensurate increase in high school graduates. There is financial aid available, but still relatively few Alaskans are going to college. The following strategies are suggested to increase access to higher education in Alaska: (1) establish a nonportable need-based grant program; (2) improve the linkage of K-12 and higher education systems; (3) establish indigenous advanced placement programs in Alaskan high schools; (4) improve access to distance education; (5) improve access to distance education; (6) encourage more Alaskan business and industry involvement; and (7) improve the transition from high school to college. Improving access will require that policymakers from all sectors of the Alaskan community contribute. (Contains 3 figures and 38 references.) (SLD)

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ED 451 792

ACCESS TO HIGHER EDUCATION IN ALASKA

STRATEGIES FOR SUCCESS

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December 8, 2000

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January 2001

Dear Fellow Alaskan,

In recent years the Commission and its partner, the Alaska Student Loan Corporation, have focused their resources on becoming a service-driven, self-sustaining, educational financial assistance source for Alaskans. Our first step was to create a stable financial base for our programs. Once we could assure you that the loan programs were fiscally healthy and structured to be available to future generations of Alaskans, we began to build on that foundation by identifying customer needs and expectations.

In talking with a variety of our customers—borrowers, parents, high school counselors, postsecondary educational institutions, other public agencies working to insure Alaska's economically sound future—we found in spite of each group's varying short-term needs and expectations, we all share a vision for a strong and growing Alaska. We also have shared issues that can only be addressed by optimizing the results from State efforts to support its citizens, through joint initiatives and partnerships that will serve individuals and Alaska as a whole.

Most notable, and of keen interest to all policymakers, is the need to help close the growing gap between current workforce capacity and industry needs. Dubbed "the skills gap" by the Alaska Human Resource Investment Council (AHRIC), this shortage of trained Alaskan workers contributes to trends such as recruitment of non-residents for professional positions. Without a well-trained Alaska workforce base, industry may be increasingly unable to consider Alaska for new business growth. In that event, Alaskans forfeit individual and collective benefits of higher salaries and a strong, diversified economic base.

The Commission became aware of the increasing concern about an Alaska skills gap at the same time as national studies were revealing sobering statistics about higher education in Alaska. For example, as of 1997, our state was second to last in the U.S. in the rate at which our young people attended college. Last year, a follow-up study indicated that by 1998, Alaska had slid to 50th in the nation. In an era when literally all industries are "knowledge" based, requiring technical know-how and strategic and critical thinking skills to survive, much less thrive, three out of four Alaskan young people are opting out of or postponing higher education.

Alaska's economic outlook is far from bleak—our Alaska Department of Labor reports low unemployment relative to historical rates, the number of Alaskans on the welfare rolls has declined, and oil prices are now rebounding from the lows of the late 1990s. Nevertheless, it is clear that while a few Alaska industries are enjoying robust growth, most are not. In the longest period of sustained economic growth in the history of the country, Alaska is not keeping pace.

This statistical and practical reality is one that must concern all Alaskans—especially in areas suffering large reductions in or loss of entire industries. AHRIC has pointed out that fully one fourth of jobs that are being newly created will require a bachelor's degree or above, and another 25% will require specialized postsecondary training. As we explore and develop new industries in Alaska, we must be able to provide trained and educated Alaskan human capital, or Alaska's opportunities for sustained economic growth will only fall further behind.

This report, Access to Higher Education in Alaska—Strategies for Success, *was requested by the Commission to define and stimulate discussion about an issue that may be a significant factor in impeding the expansion and growth in our State's economy.*

On behalf of the Commission, I invite your comment, and I hope you find this report to be of value to you.

Sincerely,

Diane Barrans
Executive Director

EXECUTIVE SUMMARY

The Alaska Commission on Postsecondary Education, recognizing the importance of college-going rates and the social and economic health of the State, requested the Institute for Higher Education Policy to analyze the historical and current context regarding student participation in higher education and develop policy recommendations for improving the percent of Alaskan students going to college. The purpose of the analysis is to create awareness of the issue and stimulate discussions among policymakers in the State so that specific strategies can be implemented to improve access.

The problem is straightforward. Not enough college-age Alaskans are continuing their education. Thomas Mortenson, a higher education analyst, indicates that in 1998 only 24.2 percent of 19-year-old Alaskans enrolled in college. With fewer than one-quarter of 19-year-olds continuing their education beyond high school, Alaska ranks last in this category of all 50 states.

Benefits of Going to College

Considerable research has been conducted to identify the benefits of higher education, often by cataloging them in terms of public and private economic and social benefits. The benefits are compelling. Public economic benefits include greater productivity, increased workforce flexibility, decreased reliance on governmental financial support, and increased tax revenues. Private economic benefits include higher salaries and benefits, increased employment, higher savings levels, and improved working conditions. Public social benefits of higher education are reduced crime rates, increased charitable giving and community service, and increased quality of civic life. Finally, private social benefits include improved health and life expectancy and enhanced consumer decision making.

Factors Affecting Access to Higher Education

A considerable amount of research identifies several factors that relate to access to higher education.

Academic Preparation. National studies found that (1) type of high school program is strongly associated with college attendance and (2) taking college preparatory mathematics courses is even more strongly associated with college attendance. Students who took one or more years of algebra attended college at two to three-and-one-half times the rate of students who did not take algebra. However, geometry is an even better discriminator. There is also strong evidence that students who enroll in algebra or foreign language during *eighth grade* are more likely to pursue a four-year postsecondary education at the end of high school.

Student Aspirations. Students' expectations regarding their plans to attend college is also an important factor related to access. Using

national data, the College Board found that more than 85 percent of students who indicated that they expected to continue their education at least through a bachelor's degree attended college within four years of high school graduation.

Family Background and Income. Parental educational attainment and family income plays a highly influential role in college-going rates. National census data shows that less than 50 percent of high school graduates whose parents had dropped out of high school went on to college while over 90 percent of high school graduates whose parents had a bachelor's degree or more attended college shortly after high school. Moreover, there is a high positive correlation between family income and college attendance. High school completers from low-income families are less likely to go to a 2- or 4-year college or university immediately after high school than were their peers from middle-income families, who, in turn, are less likely to enroll than completers from high-income families.

Family Financial Capacity. Financial assistance is critical to access, particularly for students from low-income families. For students from low-income families, financial need to attend a college or university represents a substantial portion of family income. In addition to the fact that lower-income students have higher financial need than higher-income students, lower-income students have also been found to be more sensitive to a given level of need than high-income students. That is, once the level of financial need exceeds a certain amount, low-income students are more likely to be deterred from attending higher education than are higher-income students.

"WITH FEWER THAN ONE-QUARTER OF 19-YEAR-OLDS CONTINUING THEIR EDUCATION BEYOND HIGH SCHOOL, ALASKA RANKS LAST IN THIS CATEGORY OF ALL 50 STATES."

THE ENVIRONMENTS OF ALASKA

Workforce. There appears to be a mismatch between the workforce needs of the State and availability of qualified Alaskans to meet those needs. Not only is the population of Alaskans getting older, therefore reducing the number of available citizens required to fill vacant positions—particularly entry level jobs—but also the educational requirements for new jobs are higher than they were in the past.

Education. The need to raise the level of education for a substantial number of new jobs in Alaska is complicated by the projections of high school graduates. As Alaska's population grows and the need for even more workers with skills generally acquired through higher education increases, the issue of access will exacerbate because the State will not enjoy a commensurate increase in high school graduates. It is important to note, however, that the initiatives to raise academic standards in the K-12 sector shows promise of preparing more students to continue their education beyond high school.

Financial Aid. There is a broad array of financial assistance programs available to Alaskan students who want to enroll in college, including grants, loans, scholarships, tax credits, and

prepaid tuition plans. Unfortunately, despite the availability of these financial aid programs, relatively few Alaskans are going to college.

Strategies to Increase Access to Higher Education

The following strategies are designed to increase the number of Alaskan students who aspire to continue their education beyond high school. There is not one magic pill to increase access. Implementation of these strategies requires the participation, and in many respects, the cooperation of all stakeholders of the State, including the higher education community, the K-12 sector, the legislative and executive branches of the government, and business and industry. The challenge for Alaska is to focus its considerable energies on improving the college-going rate of its high school students by considering the following initiatives.

"THOSE WITH ASSOCIATE'S AND BACHELOR'S DEGREES EARN 29 PERCENT AND 73 PERCENT MORE, RESPECTIVELY, THAN HIGH SCHOOL GRADUATES OVER THE COURSE OF THEIR LIFETIMES."

- **Establish a Non-Portable Need-Based Grant Program.** This strategy is designed to target that segment of Alaska's population that traditionally has a low higher education participation rate. The University of Alaska has established a merit-based grant program, which is off to an auspicious start. Complementing this important initiative, a simple need-based grant program should be implemented for students to attend higher education institutions in Alaska. Financial need should be adjusted to take into account the unique circumstances of the Alaskan economy. In addition to low-income students in general, a specific population that would benefit from this program would be Alaska Natives. Virtually every other state offers some type of need-based grant program, from which Alaska can borrow the best aspects.
- **Improve the Linkage of K-12 and Higher Education Systems.** In several states, policy makers and educators have concluded that to provide a more cohesive and articulated educational experience for students, K-12 and higher education systems must be more closely aligned. These initiatives that encourage school-college collaboration are now commonly known as K-16 (kindergarten through college) partnerships. K-16 strategies that systemically link K-12 and higher education systems bolster an agenda that addresses many of the problematic areas embodied in both systems. Many K-16 programs are targeted to the following outcomes: (1) increasing access to college for students from low-income families; (2) encouraging collaborative projects between local K-12 school districts and higher education institutions to improve student achievement and prepare students for successful college experiences; (3) increasing and improving student preparation for jobs and careers; and (4) providing information on the availability of financial aid. In short, a variety of K-16 activities increase the probability that more students will want to, and be able to, enroll in higher education institutions immediately after finishing high school.

- **Establish Indigenous Advanced Placement Programs in Alaskan High Schools.** This strategy involves academically talented students in Alaska high schools taking advanced courses *in their high schools* and receiving college credit. Modeled after several programs in high schools across the country, the teachers in the high school would collaborate with University of Alaska faculty, or the faculty from the other higher education institutions in Alaska, so that the curriculum is essentially identical to the college curriculum and the examinations used to assess learning for the high school students are the same as the examinations given to university students. The students would remain in their high school so they can, as seniors, participate in high school activities such as sports, music, and theater, in addition to providing leadership in student government. If they later choose to attend the university, the college credit they are awarded would apply to their academic program. Implementation of such an advanced placement program, especially in the interior, would encourage high ability students to continue their education beyond high school. Indeed, it would be possible for high school students to complete a major portion of their freshman year requirements.
- **Improve Access to Distance Education.** Improving access to distance education is a strategy that has the potential to increase college enrollment for all students, but particularly students residing in remote areas. A far higher percentage of Alaska households has computers than households nationally. The State also exceeds regional and national averages on the percentage of households with Internet access. There are few states, if any, that have a greater need for distance education. According to the Institute of Social and Economic Research (ISER), about 60 percent of Alaskans live within 20 road miles of one of the three main UA campuses and another 25 percent live within 20 road miles of an extended site. In addition to the remaining 15 percent of Alaskans who live outside these boundaries, because of the harsh winter, many *within* the 20-mile boundary can have difficulties traveling to a campus or site.
- **Encourage More Alaskan Business and Industry Involvement.** This strategy directly addresses the workforce needs of Alaska. Business and industry have a large stake in improving access to higher education because of their need to hire people with critical analytical, communications, and problem-solving skills. This is particularly true in the areas of math and sciences, in part because of the growing reliance on technology. In September 2000, the Alaska Human Resources Investment Council (AHRIC) convened a group of educators, government agencies, labor organizations, and private citizen volunteers, along with business and industry, and produced a five year strategic plan. Titled *Closing Alaska's Skills Gap*, the report contains the Alaska Unified Plan, which guides the over $60 million annual investment of public funds focused on providing employment

education and job training. The principles developed for system change include connecting secondary and postsecondary vocational and technical education and providing more access to technical education and training through distance delivery.

- **Improve Transition from High School to College.** One specific strategy that should be considered for easing the transition between high school and college, particularly in vocational areas, is the creation of a "2+2+2 program." The name of such a program is derived from a sequential educational program that begins with the last two years of high school, during which students follow a specific course of study, often in a technology field. The program continues to the community college level in which students follow a prescribed field of study that builds on the high school curriculum. Upon completion of the two years at the community college, students can enter the workforce or enter the university to proceed to the baccalaureate degree. Alaska businesses can participate in this promising approach to increase access by playing an active role in designing the curriculum, implementing faculty and student internships, and committing funds.

"SPECIFICALLY, FROM 1978 TO 1998, INFLATION-ADJUSTED ANNUAL EARNINGS FOR PERSONS WITH ONLY A HIGH SCHOOL EDUCATION ACTUALLY DECLINED BY 4 PERCENT, IN CONTRAST TO THOSE WITH BACHELOR'S DEGREES WHOSE EARNINGS INCREASED BY 15 PERCENT"

SUMMARY

The Strategies for Success that have been identified in this paper address access to higher education head-on. Although some of the strategies are targeted to students from low-income families–particularly the non-portable grant program–the recommendations are designed to increase access for *all* Alaskans. Accomplishing this goal is not the responsibility of only the Alaskan educational establishment. Improving access requires policymakers from all sectors of the Alaskan community to contribute. If they do, then more young Alaskans will gain the benefit of higher education, and that is good for everybody in the State. As one wag said, "In the space age, the most important space is between the ears."

INTRODUCTION

As the nation enters into the 21st century, the value of a college education, to both the individual and society in general, has never been greater. Americans' earnings gap based on educational attainment is widening. Specifically, from 1978 to 1998, inflation-adjusted annual earnings for persons with only a high school education actually declined by 4 percent, in contrast to those with bachelor's degrees whose earnings increased by 15 percent (U.S. Bureau of Census, 1999). Moreover, those with associate's and bachelor's degrees earn 29 percent and 73 percent more, respectively, than high school graduates over the course of their lifetimes. Increased educational attainment also accrues benefits to society, including greater consumption and decreased reliance on government financial support (The Institute for Higher Education Policy, 1998).

"ACCORDING TO THE U.S. DEPARTMENT OF LABOR, RISING LEVELS OF EDUCATIONAL ATTAINMENT WERE RESPONSIBLE FOR ABOUT 14 PERCENT OF THE GROWTH IN OUTPUT PER HOUR WORKED IN THE PRIVATE SECTOR."

The Alaska Commission on Postsecondary Education, recognizing the importance of college-going rates and the social and economic health of the State, asked the Institute for Higher Education Policy to examine issues relating to Alaska's students' access to higher education. In addition to analyzing the historical and current context regarding student participation in higher education, the Institute was requested to develop policy recommendations for improving the percent of Alaska's students going to college. The purpose of the analysis is to create awareness of the issue and stimulate discussions among policymakers in the State so that specific strategies can be implemented to improve access.

The problem is straightforward. Not enough Alaskan high school graduates are continuing their education. The Western Interstate Commission for Higher Education reports that, in 1996, Alaska enrolled 38.9 percent of recent high school graduates anywhere as first-time freshmen in a college or university, compared to 58 percent of high school graduates in the nation (Western Interstate Commission for Higher Education, 2000). Another source, *Postsecondary Education Opportunity,* indicates that in 1998, the percentage of 19-year-olds in Alaska who enrolled in college was 24.2 percent. According to researcher Thomas Mortonson, Alaska had the nation's lowest percentage of this age group continuing their education (Mortenson, 2000). By factoring in the Alaska high school dropout rate into his analysis, Mortenson more precisely portrays the State's educational demographic.

Section One of this report will provide a discussion of why it is important to increase access to higher education. Section Two will identify those factors that affect access, followed by Section Three, which discusses the unique characteristics in Alaska. Section Four outlines specific policy initiatives designed to increase access to higher education.

SECTION ONE

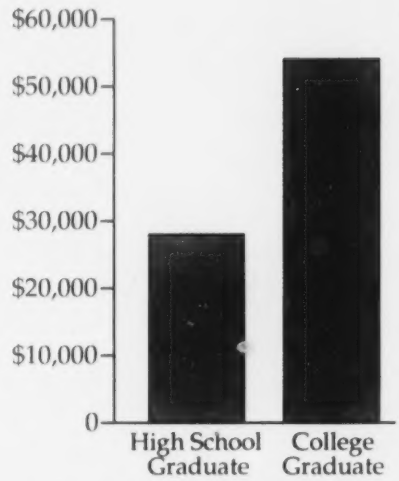
WHY INCREASE ACCESS TO HIGHER EDUCATION?

Considerable research has been conducted to identify the benefits of higher education, often by cataloging them in terms of public and private benefits. The Institute for Higher Education Policy surveyed the extensive literature and compiled benefits of higher education by using four general categories: (1) public economic benefits, (2) private economic benefits, (3) public social benefits, and (4) private social benefits (The Institute for Higher Education Policy, 1998). They are summarized below.

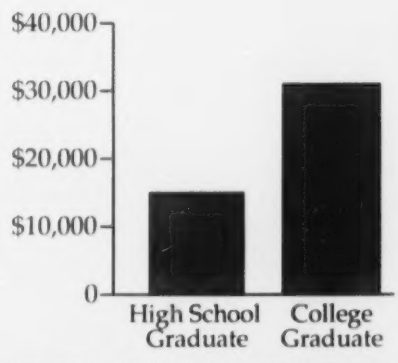
PUBLIC ECONOMIC BENEFITS

Public economic benefits are those benefits for which there can be broad economic, fiscal, or labor market effects. In general, these benefits result in the overall improvement of the economy as a result of citizens' participation in higher education.

- *Greater productivity.* Although U.S. productivity has increased only modestly in the last two decades, nearly all of that increase has been attributed to the overall increased education level of the workforce. Worker productivity is typically measured as output per worker or per hour worked. According to the U.S. Department of Labor, rising levels of educational attainment were responsible for about 14 percent of the growth in output per hour worked in the private sector. In fact, several studies have estimated that increases in educational attainment have offset what otherwise would have been a serious decline in the growth in U.S. productivity (Decker, et al, 1997).
- *Increased workforce flexibility.* Higher education contributes to increased workforce flexibility by educating individuals in foundational skills–critical thinking, writing, interpersonal communication–that are essential to the nation's ability to retain its competitive edge in a global economy. Workforce flexibility is particularly critical to business and industry, which is continually trying to adapt to a rapidly changing economic environment.
- *Decreased reliance on governmental financial support.* Those who have attended college participate in government assistance programs at substantially lower rates than high school graduates or those who have not graduated from high school.
- *Increased tax revenues.* Individuals with higher levels of education generally contribute more to the tax base as a result of their higher earnings.



MALE 1997 AVERAGE INCOME



FEMALE 1997 AVERAGE INCOME

PRIVATE ECONOMIC BENEFITS

Private economic benefits are those benefits that have economic, fiscal, or labor market effects on the citizens who have participated in higher education.

"HIGH SCHOOL GRADUATES ARE UNEMPLOYED AT TWICE THE RATE OF THOSE WITH A BACHELOR'S DEGREE OR MORE—3.9 PERCENT COMPARED TO 1.9 PERCENT. THIS GAP BETWEEN UNEMPLOYMENT RATES OCCURS BETWEEN THOSE WITH DIFFERENTIAL EDUCATIONAL ATTAINMENT REGARDLESS OF WHETHER THE ECONOMY IS BOOMING OR HAVING A DOWNTURN."

- *Higher salaries and benefits.* In both lifetime and average annual income terms, individuals earn more as a result of their higher levels of education. In 1997, for example, male high school graduates earned an average of $29,958 annually, while male bachelor's degree recipients made 77 percent more–$53,152. Female high school graduates earned an average of $16,678 annually, and female bachelor's degree recipients made 83 percent more–$30,574 (Mortenson, 1999). This trend is consistent at all educational levels. Also, those individuals who have attended college receive better fringe benefits, including vacation time and health care.
- *Employment.* Citizens who have gone to college are employed at higher rates and with greater consistency than those who have not attended college. According to the January 1998 employment report from the U.S. Department of Labor, high school graduates are unemployed at twice the rate of those with a bachelor's degree or more–3.9 percent compared to 1.9 percent. This gap between unemployment rates occurs between those with differential educational attainment regardless of whether the economy is booming or having a downturn.
- *Higher savings levels.* Those with bachelor's degrees or more have higher value interest earning assets, home equity, and other financial assets. Also, college-educated citizens contribute at higher rates to retirement plans, mutual funds, and other saving devices.
- *Improved working conditions.* The working conditions of persons who have gone to college have been found to be substantially better than those of individuals who did not attend college. People who have attended college tend to work more in white-collar jobs, in office buildings or other facilities with controlled environment conditions and with conveniences (ranging from computers, to on-site child care, to consistent work hours) that improve the quality of their lives.

Public Social Benefits

Public social benefits accrue to groups of people, or to society broadly, that are not directly related to economic, fiscal, or labor market benefits.

- *Reduced crime rates.* Incarceration rates in state prisons in 1993 show there were 1,829 prisoners with one to three years of high school per 100,000 population, compared to 290 per 100,000 for those who graduated from high school and 122 per 100,000 for those with at least some college.
- *Increased charitable giving/community service.* A 1991 study found that 66 percent of those with some college, and 77 percent of those with at least a bachelor's degree, perform volunteer work. This compares to 45 percent of high school graduates, and 22 percent of those with less than a high school degree. This same

study also found that financial contributions to charities were positively correlated with education levels.

- *Improved ability to adapt to and use technology.* Higher education levels have been associated with society's increased ability to adapt to and use technology. College-educated individuals contribute more to research and development of products and services that enhance the quality of others' lives and promote the diffusion of technology to benefit others.
- *Increased quality of civic life.* Measures of civic life indicate improvements by educational level. For instance, 79 percent of persons age 25 to 44 with a bachelor's degree or more voted in the 1992 presidential election, compared to 67 percent of those with some college, 50 percent of high school graduates, and 27 percent of those with less than a high school degree.
- *Social cohesion.* Individuals with a college education have a substantial effect on social connectedness and appreciation for a diverse society. Those with more than a high school education have more trust in social institutions and participate in civic and community groups at much higher rates than others.

Private Social Benefits

Private social benefits accrue to individuals or groups that are not directly related to economic, fiscal, or labor market effects.

- *Improved health/life expectancy.* Surveys by the Public Health Service indicate that those with a college education exercise or play sports regularly at higher rates than non-college participants. Also, only 14 percent of those with a bachelor's degree smoke cigarettes, compared with 23 percent of those with some college, 30 percent of high school graduates, and 37 percent of those with less than a high school diploma. Life expectancies are also higher for those who have attended college than for those who have not.
- *Improved quality of life for offspring.* Children whose parents have attended college have a considerably higher quality of life. Evidence of these improved life conditions includes: children of college-educated parents are more likely to graduate from high school and continue on to college; they are more likely to have higher cognitive development; and daughters of college-educated mothers are substantially less likely to become unmarried teen parents.
- *Better consumer decision making.* Individuals with higher education levels have increased capacity to make informed decisions as consumers. For example, individuals make better decisions about how to choose a physician appropriate for their medical needs, financial resources, and geographic location.
- *Increased personal status.* Having a college education has long been associated with increased personal status. Indicators of that status can range from having a more prestigious job–doctor,

engineer, or college professor, for example–to being seen as a "role model" within a family. This is especially true for first-generation college attendees.

Although these benefits of higher education are listed in a catalogue fashion, it is important to understand that the *combination* of benefits can be described as a "cascade" of both public and private benefits. Kramer (1993) illustrates this cascade of benefits in discussing literacy:

> *Plainly, a person who can read is better off than one who cannot. He can take and perform a job that an illiterate person cannot, and he can earn money in that job. He can also use reading skills as a consumer, getting more for his money when he spends it. So literacy confers private monetary benefits. It also enables a person to read for pleasure, and thereby confers nonmonetary private benefits as well.*

"STUDENTS WHO TOOK ONE OR MORE YEARS OF ALGEBRA WERE TWO TO THREE-AND-ONE-HALF TIMES MORE LIKELY TO ATTEND COLLEGE THAN STUDENTS WHO DID NOT TAKE ALGEBRA."

The presence of literate people in society creates advantages for others as well. People can rely on the literacy of others in designing production processes and reaching markets with advertising. Thus, general literacy becomes a public benefit. In short, benefits of going to college can be public and private, or a combination of the two. Any single benefit, public or private, could also lead to further public and private benefits–the cascade of benefits that result from education.

SECTION TWO

FACTORS AFFECTING ACCESS TO HIGHER EDUCATION

The previous section provided compelling evidence that higher education provides substantial benefits to both the individual and society in general. This section will outline those factors that contribute to the ability of people to take advantage of the higher education experience. The major factors that relate to access can be outlined in four broad areas: (1) the quality and level of preparation in high school; (2) high school students' aspirations; (3) family background and income; and (4) financial aid.

High School Preparation

Several national studies have researched students' high school preparation as it relates to access to higher education and the evidence is comprehensive and unequivocal. The College Board, using data collected by the National Center for Education Statistics (NCES) in the High School and Beyond (HS&B) Study[1], found that (1) type of high school program is strongly associated with college attendance and (2) taking college preparatory mathematics courses is even more strongly associated with college attendance (Pelavin, 1990). Students who took one or more years of algebra were two to three-and-one-half times more likely to attend college than students who did not take algebra. However, geometry is an even better discriminator. For example, white students attend college at a higher rate than black and Hispanic students. However, among students who completed a course in high school geometry, the gap between white students and minorities virtually disappeared.

A more recent national study by NCES came to a similar conclusion. Not all students who take higher-level math or foreign language courses in high school apply to four-year colleges or universities during their senior year in high school. However, students who do enroll in algebra or foreign language during ***eighth grade*** are more likely to pursue a four-year postsecondary education at the end of high school. This is true regardless of the level of math or foreign language attained by these students (U.S. Department of Education, 1999).

[1]*The High School and Beyond (HS&B) Study is one of the three major studies that compose the National Educational Longitudinal Studies program conducted by NCES. The purpose of the program is to study educational, vocational, and personal development of young people, beginning with their elementary or high school years, and the personal, familial, social, institutional, and cultural factors that may affect that development. The HS&B study began in the spring of 1980, at which point more than 30,000 sophomores and 28,000 seniors from 1,100 schools invited to participate in the data gathering.*

Aspirations of High School Students

Students' expectations regarding their plans to attend college is an important factor related to access (Pelavin, 1990). Using national data, the College Board found that more than 85 percent of students who indicated that they expected to continue their education at least through a bachelor's degree attended college within four years of high school graduation. Also, high school sophomores who intended to finish college were five times as likely to proceed directly from high school to a four-year college or university as those who did not think they would obtain a bachelor's degree (55 versus 11 percent).

"VIRTUALLY ALL STUDENTS WHO (1) PLAN TO ATTEND COLLEGE AND (2) TAKE COLLEGE PREPARATORY MATHEMATICS IN HIGH SCHOOL GO TO COLLEGE REGARDLESS OF THEIR RACE OR ETHNICITY."

The basic conclusion of these studies is this. Virtually all students who (1) plan to attend college and (2) take college preparatory mathematics in high school go to college regardless of their race or ethnicity. However, regardless of these factors, economic status continues to remain a barrier as shown below.

Family Background and Income

Parental educational attainment plays a highly influential role in college going rates. Using national census data, Mortenson found that among dependent family members between 18 and 24 years old who had graduated from high school, the college continuation rate ranged from about 48 percent of those whose parents dropped out of high school, to 91 percent of those whose parents had a bachelor's degree or more (Mortenson, 1999).

With respect to family income, Mortenson also found a strong pattern of college participation. By family income quartiles, the rates of college enrollment in 1996 were as follows (Morenson, 1998):

Bottom quartile:	53.8%
Second quartile:	66.0%
Third quartile:	75.0%
Top quartile:	85.3%

According to a national study by NCES (Choy, 1999), in 1996, high school completers from low-income families were less likely to go to a 2- or 4-year college or university immediately after high school (49 percent) than were their peers from middle-income families (63 percent), who, in turn, were less likely to enroll than completers from high-income families (78 percent). Even when low-income high school graduates not only had the academic qualifications for admission to a 4-year college and took the necessary steps toward admission, they were less likely than high-income graduates to enroll in a 4-year institution (83 versus 92 percent). However, they were just as likely as middle-income students to be accepted at a 4-year institution (94 versus 93 percent) and to enroll (83 versus 82 percent). In short, there is a high positive correlation between family income and college attendance. Recognizing this relationship, public policy aimed at leveling the playing field must consider

ways to offset the economic barriers for students from low- or middle-income families.

Financial Aid

Financial assistance is critical to access, particularly for students from low-income families. Despite financial aid, many students have unmet need. Unmet need is the difference between net price of going to college (total price of attendance minus all financial aid received) and the expected family contribution (EFC) of the student's family. When a student applies for federal financial aid, an EFC is calculated according to a complex formula that takes into account both student and parent income and family size, among other factors. EFC is therefore an estimate of a family's ability to financially contribute to a student's education, and is used to determine the type and amount of aid available to an individual student.

"ONCE THE LEVEL OF UNMET NEED EXCEEDS A CERTAIN AMOUNT, LOW-INCOME STUDENTS ARE MORE LIKELY TO BE DETERRED FROM ATTENDING HIGHER EDUCATION THAN HIGHER INCOME STUDENTS ARE."

For students from low-income families, the total unmet need represents a substantial portion of family income. In addition to the fact that lower-income students have higher unmet need than higher-income students, lower-income students have also been found to be more sensitive to a given level of unmet need than high-income students. ***That is, once the level of unmet need exceeds a certain amount, low-income students are more likely to be deterred from attending higher education than higher income students are.*** Generally, it has been found that for each $150 increase in the net price of college attendance, the enrollments of students in the lowest income group decrease by about 1.8 percent (Choy, 1999). Also, community college students are more sensitive to price than are students in four-year public institutions, most likely because of the concentration of lower-income and minority students.

Risk Factors

Up to this point, the focus of this section has been on high school graduates. It may be instructive to also discuss briefly those risk factors that are related to high school attrition (Sanderson, 1996). "At risk" factors of dropping out of high school include (1) student living in a single parent family, (2) annual family income less than $15,000, (3) an older sibling who had dropped out of school, (4) parents who had not finished high school, (5) limited proficiency in English, and/or (6) at home without adult supervision more than three hours a day. Eighth graders with two or more of these factors present may experience a substantial barrier to higher education participation and success–specifically because of their increased probability of not graduating from high school. While the focus of this paper is targeted on access for high school graduates, it is important to keep in mind those conditions that relate to the *lack* of a high school diploma.

SECTION THREE

ALASKA ENVIRONMENT

This section describes the factors unique to the Alaskan environment. They are identified as the: (1) workforce environment; (2) educational environment; and (3) financial aid environment. It is important to understand these factors because they serve as a context for the development of specific strategies that show strong promise for increasing access to higher education.

WORKFORCE ENVIRONMENT

As described below, there appears to be a mismatch between the workforce needs of the State and availability of qualified Alaskans to meet those needs. Not only is the population of Alaska getting older, therefore reducing the number of available citizens required to fill vacant positions—particularly entry level jobs, but also the educational requirements for new jobs are higher than they were in the past.

"LESS THAN 2 PERCENT OF UNDERGRADUATES RECEIVED NEED-BASED AID IN ALASKA, COMPARED TO OVER 20 PERCENT NATIONWIDE."

THE GRAYING OF ALASKA'S POPULATION

By 2015, the proportion of Alaska's population of 18-to-24 year olds is estimated to be at about 11 percent. However, the proportion of Alaskans over 65 is increasing from 5 percent in 1995 to nearly 8.5 percent in 2015 (Western Interstate Commission for Higher Education, 2000). This suggests that the entry-level job market is growing at a faster pace than the pool of workers to fill those positions, as discussed below.

ALASKA'S GROWING AND OLDER WORKFORCE

Alaska's employment growth is expected to increase at an annual rate of 1.6 percent per year over the next 10 years, resulting in 19,000 new jobs by 2003 and about 46,000 new jobs by 2008. Employment growth will be focused primarily in the service, trade, and transportation industry sectors. A growing population, the State's new industries, increased tourism, and an economy that provides more in-state services will drive this growth. Industries leading the expansion include Alaska's air cargo and visitor industry sectors, telecommunications, health services, and the retail sector. Moreover, the number of nonresident workers in Alaska has declined and the State's population has reached a critical mass where retail and service opportunities can be met locally, rather than Outside (Hadland, 2000).

At the same time that employment growth is increasing, Alaska's labor force is aging. In several Alaska industry sectors, 40 percent or more of the workers are age 45 or older. The average age in many industry sectors has increased by one year in each of the last 5 years. This presents opportunities for future job seekers, but challenges for employers and colleges and universities and other training providers (Hadland, 2000).

Many Future Jobs Require Higher Education

The Alaska Department of Labor and Workforce Development recently developed an analysis of emerging workforce issues (McDowell Group, Inc., 2000). Among them was the education and training needed for new jobs in Alaska. For the 1996-2006 period, although jobs will continue to be available at all levels of educational attainment, trends favor jobs requiring more education or training. About 25 percent of the "new" jobs–jobs that will be created due to growth in the economy–will require a bachelor's degree or higher. These include general managers and top executives, social workers, systems analysts, and teachers at all levels. Another quarter of new jobs will require specialized training ranging from medium term to an associate degree or postsecondary vocational training. Slightly over 40 percent of the new jobs, usually low paying, will require less than one month's training and experience.

Educational Environment

As Alaska's population grows and the need for even more workers with skills generally acquired through higher education increases, the issue of access will exacerbate because the State will not enjoy a commensurate increase in high school graduates. It is important to note, however, that the initiatives to raise academic standards in the K-12 sector, as outlined below, shows promise of preparing more students to continue their education beyond high school.

Little to No Increase in High School Graduates

During the first decade of this millennium, the number of high school graduates will remain relatively flat, despite an increasing population. There will be approximately 265 more high school graduates in 2008 than in 2000, with a slight decrease from that peak during the remainder of the decade (Western Interstate Commission for Higher Education, 2000).

School Accountability Initiatives

In 1997, the Legislature enacted a statute that directed the Department of Education and Early Development to develop the Alaska High School Qualifying Examination. One year later, the Legislature passed another statute that made the qualifying examination a part of a greater system of accountability, standards, and assessments for Alaskan schools (Alaska Department of Education and Early Development). Known as the Quality Schools Initiative, schools will be required to do a number of things, including:

- ✓ adoption of State-mandated academic standards in reading, writing, and mathematics;
- ✓ administration of assessments at the 3rd, 6th, and 8th grades to measure whether each student is meeting the reading, writing, and mathematics standards; and

"A LARGE MAJORITY OF ALASKA FAMILIES, EVEN POOR FAMILIES, HAVE INCOMES THAT ARE SUFFICIENTLY HIGH TO DISQUALIFY STUDENTS FROM RECEIVING FEDERAL GRANTS."

- ✓ reporting of certain information to the schools' communities and the State about students and their progress.

In addition, the Quality Schools Initiative will require each high school senior, beginning with the class of 2002, to pass the Alaska High School Graduation Qualifying Examination.

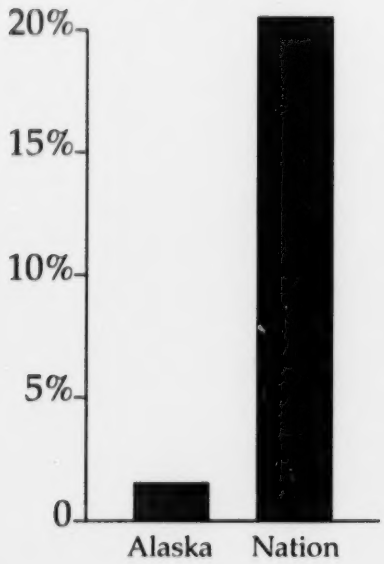
Financial Aid Environment

There is a broad array of financial assistance programs available to Alaskan students who want to enroll in college. It is helpful to identify the major programs in the following categories: need-based grants, loans, scholarships, tax credits, and prepaid tuition plans. Unfortunately, despite the availability of these financial aid programs, relatively few Alaskans are going to college.

Need-Based Grants

According to the most recent report published by the Western Interstate Commission on Higher Education (WICHE), less than 2 percent of undergraduates received need-based aid in Alaska, compared to over 20 percent nationwide. In addition, Alaska's need-based aid amounted to an estimated $22 per FTE undergraduate student in 1997-98, well below the national average of $387 (Western Interstate Commission on Higher Education, 2000). One major reason why few Alaskans receive federal grants is that a large majority of Alaska families, even poor families, have incomes that are sufficiently high to disqualify students from receiving federal grants. Another reason could be the Alaska Student Loan Program administered by the Alaska Commission on Postsecondary Education. This very popular program offers benefits similar to federal subsidized programs and is imbedded in the Alaskan culture. A number of students will not consider other alternatives. Because completion of the Free Application for Federal Student Aid (FAFSA) is not currently required for the awarding of state aid, a large number of Alaskans do not even get included in the pool of possible Pell recipients.

1997/98 Average Need-based Aid in Alaska vs. the Nation



At the federal level, the need-based Pell Grant program is the most important and broadly available form of grant support. The Pell Grant is considered the foundation of a student's aid package, after which all other aid awards are determined. In Alaska, a very small number of students participate in the Pell Grant program. During 1998-1999, 4,325 Alaskans received a Pell Grant, which averaged about $1,860 per student. This is the lowest number of Pell Grant recipients of any state in the nation. The state with the next lowest number of Pell Grant recipients is Delaware with 7,125 recipients, followed by Wyoming with 7,200 (U.S. Department of Education Office of Postsecondary Education, 2000).

Very needy students can also receive a Supplemental Educational Opportunity Grant (SEOG), which is one of the federal government's campus-based programs. Like the Pell Grant, few Alaskan's participate in the program. During 1998-99, 1,230

students received an SEOG Grant, which, again, is the lowest number of students in any state.

Loans

The Federal Stafford Loan Program provides loans to students nationwide. As with need-based grants, Alaska has the fewest recipients of any state in the nation, with 6,807 during 1998-99. Idaho has the next fewest recipients with 7,941. The Federal Perkins Loan Program, another federal campus-based program, is virtually non-existent in Alaska with only 80 recipients in 1998-99, and an average loan amount of $2,273 (U.S. Department of Education Office of Postsecondary Education, 2000). The low number of federal loan recipients is understandable given the availability of Alaska student loans and the ease in which students can receive them.

"ALASKA HAS THE LOWEST NUMBER OF PELL GRANT RECIPIENTS OF ANY STATE IN THE NATION."

In contrast to the Stafford and Perkins Loans, in 1998-99, the Alaska Student Loan Program expended $67,613,150 and awarded 11,514 loans–with an average loan of $5,872. During the same year, 75 students were awarded the Alaska A.W. "Winn" Brindle Memorial Scholarship Loan and one student received the Alaska Michael Murphy Scholarship Loan.

Alaska Scholars Program

Beginning in the fall of 1999, the Alaska Scholars Program (ASP) was initiated to provide merit-based grants to Alaska high school graduates (University of Alaska Statewide System, 2000). A four-year scholarship to the University of Alaska equal to the cost of tuition and fees ($1,350 per term) is offered to the top ten percent of graduates from each Alaska high school. During its first year of operation, out of 781 eligible students, 266 (34 percent) accepted the offer and enrolled at the University. Of these students, 152 went to UA Anchorage, 95 went to UA Fairbanks, and 23 to UA Southeast. In fall 2000, 875 scholarships were awarded and 308 enrolled at the University.

Tax-Credits

Recently, Congress and the Clinton Administration have supported tax credits as a way to provide access to higher education, primarily for middle-income families. Use of the tax code for higher education represents a fundamental change in approach, as federal student aid traditionally has focused on targeted, need-based aid for several decades. The most important of these new initiatives include:

- Hope Scholarships, which are aimed at the first two years of undergraduate study, provide a non-refundable tax credit for 100 percent of the first $1,000 of allowable expenses and 50 percent of the second $1,000 for each eligible dependent; and
- Lifetime Learning Credits, which are available to undergraduates, graduate students, and working Americans, provide a non-refundable 20 percent tax credit on the first $5,000

of tuition and fees through 2002, and the first $10,000 thereafter (The Institute for Higher Education Policy, 1999).

Since the establishment of these programs, states have struggled to determine the appropriate policy response to this new direction in federal support for higher education. Unlike the federal Pell Grant, SEOG, and Work-Study programs–which address the issue of access for low-income students–tax credits are designed explicitly to reduce the net expense for middle-income families. Tax credits are not available to financially disadvantaged families and students who have no tax liability, since people can only benefit to the extent that they owe taxes.

"LOW-INCOME STUDENTS ACT AS THOUGH THEY ARE UNAWARE OF THE STUDENT AID BENEFITS WHICH CAN BRING TUITION AND OTHER COSTS WITHIN REACH; THOSE THAT ARE ACADEMICALLY PREPARED TO BENEFIT FROM COLLEGE AND POOR ENOUGH FOR FINANCIAL AID APPEAR TO BE OBLIVIOUS TO ITS AVAILABILITY."

The extent to which Alaskans are taking advantage of this financial aid opportunity is difficult to assess. Critics estimate that those families with incomes between $40,000 and $90,000 and students at higher-priced institutions will benefit the most, while families with incomes less than $30,000 are not likely to benefit at all. For students attending community colleges, only those with family incomes between $50,000 and $80,000 will receive full benefit of tax credits, while families with incomes around $40,000 will receive partial benefit (Conklin, 1998).

Prepaid Tuition Plans

The University of Alaska Advance College Tuition (ACT) Payment Plan was established by the legislature in 1991 (National Association of State Treasurers, 1998). Administered by the University of Alaska (UA), participants can purchase ACT credits (units equal to one credit hour of tuition) at the current UA rate for future use. If the credits are redeemed at UA, each ACT Credit is equal to one credit of undergraduate tuition even if the initial purchase price plus earnings does not equal the increase in tuition. If the student attends an institution other than UA or redeems credits for educational purposes other than tuition, ACT Credits are redeemed for the initial purchase price plus earnings. A contract may be canceled at any time. Currently, ACT has approximately 11,000 contracts for the benefit of 8,560 future college students (University of Alaska Board of Regents Agenda, 2000).

In March 2000, new legislation created the Alaska Higher Education Savings Trust (EST), which allows the University of Alaska to expand the types of college savings programs it can offer. EST will be integrated with a modified version of the ACT program. Participation in the ACT program will essentially continue to be limited to Alaskan residents, while the EST program will be available to Alaskans and non-Alaskans alike. ACT will have the contribution limits of approximately $20,000 and EST contribution limits will be between $100,000 to $125,000. Also, ACT will offer one or two conservative investment options in contrast to EST, which will offer more aggressive mutual-fund type offerings (University of Alaska Board of Regents Agenda, 2000).

SECTION FOUR

STRATEGIES TO INCREASE ACCESS

The following are Strategies for Success, which are designed to increase the number of Alaskan students who choose to continue their education beyond high school. There is not one magic pill to increase access. Implementation of these strategies requires the participation and in many respects, the cooperation of all sectors of the State, including the higher education community, the K-12 sector, the legislative and executive branches of the government, and business and industry. The challenge for Alaska is to focus its considerable energies on improving the college-going rate of its high school students by considering the following initiatives.

ESTABLISH A NON-PORTABLE NEED-BASED GRANT PROGRAM

This strategy is designed to target that segment of Alaska's population that traditionally has a low higher education participation rate. As noted earlier, despite the popular and generous Alaska Student Loan Program, many students from lower-income families are reticent to borrow. In his recent book, Thomas Kane eloquently explains the problem (Kane, 1999). Low-income students act as though they are unaware of the student aid benefits which can bring tuition and other costs within reach; those that are academically prepared to benefit from college and poor enough for financial aid appear to be oblivious to its availability. One prominent explanation for this phenomenon is that financial aid systems are too complicated and unpredictable. The University of Alaska has established a merit-based grant program, which is off to an auspicious start. Complementing this important initiative, a simple need-based grant program should be implemented for students to attend higher education institutions in Alaska. Financial need should be based upon the unique circumstances of the Alaskan economy. For instance, the relatively high cost of living should be considered and differential awards could be developed with regard to geographical location. In addition to low-income students in general, a specific population that would benefit from this program would be Alaska Natives. According to a recent publication by the U.S. Department of Education, in 1989, the poverty rate among Native Americans was higher than that of the overall population. For example, among married-couple families, 17 percent of American Indian and Alaska Native families lived in poverty compared with 6 percent overall. In families headed by females with no husband present, 50 percent of Native Americans lived in poverty compared with 31 percent of the overall population (Pavel, 1998).

Virtually every other state offers some type of need-based grant program, from which Alaska can borrow the best aspects. To receive

any need-based aid, applicants should complete the Free Application for Federal Student Aid to establish any eligibility for federal grant aid before pursuing state funds or state loan programs. For needy students, the State should supplement federal grants that are not sufficient to cover tuition, fees, books, and cost-of-living expenses. Also, consideration could be given to child-care as a portion of cost of living expenses. To the extent possible, the provisions of the federal Hope Scholarship and Lifetime Learning Credits should be incorporated into the grant program so state funds can be used effectively and efficiently. A vigorous marketing campaign should be initiated to increase awareness of the new program. Additionally, as the professionals with the most direct student contact, financial aid officers from institutions eligible for federal financial aid programs should be involved in the establishment of a grant program.

Funding for this program can take many forms, including annual appropriation from the Legislature or creation of an Endowed Alaska Education Grant Fund. In evaluating the costs and benefits of implementing a need-based grant program, Alaska's leaders must recognize that bachelor's degree recipients earn 73 percent more than those citizens with only a high school education. Thus, in terms of the future contribution to Alaska's economy, the rate of return on the State's investment in grant funding has the potential to be greater than any other four-year investment the State could make with these dollars.

It should be mentioned that in 1998-99, the Alaska Legislature ended appropriation of state matching funds necessary to participate in the federally funded State Student Incentive Program (SSIG)–now called LEAP.

IMPROVE THE LINKAGE OF K-12 AND HIGHER EDUCATION SYSTEMS

In several states, policymakers and educators have concluded that to provide a more coherent educational experience for students, K-12 and higher education systems must be more closely aligned. These initiatives that encourage school-college collaboration are now commonly known as K-16 (kindergarten through college) partnerships. K-16 strategies that systemically link K-12 and higher education systems bolster an agenda that addresses many of the problematic areas embodied in both systems (Tafel, 1999). Many K-16 programs are targeted to the following outcomes: (1) increasing access to college students from low-income families; (2) encouraging collaborative projects between local K-12 school districts and higher education institutions to improve student achievement and prepare students for successful college experiences; (3) increasing and improving student preparation for jobs and careers; and (4) providing information on the availability of financial aid. K-16 activities can complement and enhance the ongoing quality initiatives already in progress. In short, a number of K-16 activities increase the probability that more students will

want to, and be able to, enroll in higher education institutions immediately after finishing high school.

Students from low-income families can be important beneficiaries of an effective K-16 program. It is the opinion of many researchers that many low-income students have a misguided belief that they are "not college material." This belief is, in part, cultural and, more specifically, familial. Anecdotal evidence suggests that parents who believed, correctly, that college was financially beyond their reach somehow communicate to their children that they are in the same situation. In addition, in communities where low-expectation parents are the dominant generation, there is less expectation for a high quality curriculum in the schools.

In addition, to the extent that the program can encourage high school students to take college preparatory courses, Alaska Natives can benefit. According to the U.S. Department of Education, only 24 percent of American Indian and Alaska Natives college-bound high school graduates completed a college preparatory curriculum compared to 56 percent of all college-bound high school graduates (Pavel, 1998).

"MANY LOW-INCOME STUDENTS HAVE A MISGUIDED BELIEF THAT THEY ARE 'NOT COLLEGE MATERIAL.'"

In improving the linkage between K-12 and higher education, the importance of collaboration cannot be overstated. The Commonwealth of Massachusetts has explored the K-16 movement and has developed a compendium of the following strategies and principles that enhance the success of school-college collaboration (Commonwealth of Massachusetts Community College Developmental Education Committee).

Strategies for Collaboration

Aligning High School Graduation Requirements with College-Level Expectations is a fundamental collaborative strategy to enhance access and improve student success in college. The Alaskan School Accountability Initiatives established in 1997 can provide a good foundation for this strategy, particularly with respect to encouraging students in middle school to take algebra or geometry.

Developing Early Assessment and Intervention Efforts is a strategy that includes bringing high school and college faculty together to work on curriculum and standards, developing early outreach programs, distributing information to middle and high school students, and providing feedback to high schools regarding how their graduates perform in college.

Monitoring Student Success Through Feedback to Middle Schools and High Schools involves providing specific academic information to Alaskan high schools regarding the academic success of their students. This strategy strengthens the collaborative process by improving curriculum development, enhancing communication between high schools and colleges, and providing information for establishing performance criteria.

Principles of Effective Collaboration

State Level Leadership Must Be United and Articulate the Goals of the K-16 Initiative. In addition to the leaders of the sectors, it is crucial that key staff in the respective organizations be appointed to be responsible for collaborative efforts.

Effective Collaboration Requires an Incentive Structure. Because of the different cultures of higher education and the K-12 sector, collaboration often is not an activity that has a high priority. Thus, incentives must be developed to enhance the motivation to work together.

Goals and Objectives Must Be Clearly Articulated. Any collaborative effort must be understood by every stakeholder, and persons involved must be consistently reminded of these goals.

Formal Lines of Communication Must Be Developed and Maintained. As communication is fundamental to all human enterprises, this principle is self-evident.

Personnel Required to Implement the Objectives Must Be Committed to the Process. No matter how committed the leadership is to the process, if those who are to implement the collaboration have not "bought in" to the objectives, success is virtually impossible.

All Stakeholders Must Be Committed to the "Long Haul." Achieving success in reaching the outcomes of the K-16 initiatives requires a *sustained* undertaking over several years. In fact, the strategies that are in place should eventually become institutionalized.

ESTABLISH INDIGENOUS ADVANCED PLACEMENT PROGRAMS IN ALASKAN HIGH SCHOOLS

This strategy involves academically talented students in Alaskan high schools taking advanced courses **in their high schools** and receiving college credit. Modeled after several programs in high schools across the country, the teachers in the high school would collaborate with University of Alaska faculty, or the faculty of the other higher education institutions in Alaska, so that the curriculum is essentially identical to the college curriculum and the examinations used to assess learning for the high school students are the same as the examinations given to University students. The students would remain in their high school so they can, as seniors, participate in high school activities such as sports, music, and theater, in addition to providing leadership in student government. If they later choose to attend the University, the college credit they are awarded would apply to their academic program. The essential components of the program include the following:

- High school teachers, who hold at least a master's degree, would collaborate with university faculty to develop college-level courses in subjects such as English, history, biology, chemistry, and mathematics.

- Students chosen to participate in the program would meet rigid academic standards, such as high grade point averages and, perhaps, a high score on the ACT or SAT.
- The standards of performance for high school students enrolled in the program would be the same as those for University freshman enrolled in similar courses.
- Credits earned in the program would become a permanent part of the University record.

Implementation of such an advanced placement program, especially in the interior, would encourage high ability students to continue their education beyond high school. Indeed, it would be possible for high school students to complete a major portion of their first year at the University.

IMPROVE ACCESS TO DISTANCE EDUCATION

Improving access to distance education is a strategy that has the potential to increase college enrollment for all students, but particularly students residing in remote areas. It is interesting to note that, on average, a far higher percentage of Alaska households have computers than households regionally or nationally. The State also exceeds regional and national averages on the percentage of households with Internet access (Western Interstate Commission for Higher Education, 2000).

An excellent example of the promise of distance education is the Rural Alaska Native Adult (RANA) program at Alaska Pacific University, which offers academic programs over the Internet. Started in January 1999, the program is designed for rural Alaska Natives who can't leave their communities for long periods of time to study on a university campus. One important attribute of the distance learning program is the sense of community established by students residing in far reaching areas in Alaska such as Bethel and Sitka.

The Institute of Social and Economic Research (ISER) of the University of Alaska recently conducted a study to assess current and future demand for distance education (The Institute of Social and Economic Research). Distance education courses are offered over television, through audio or video conferencing, by mail, over the Internet, and through combinations of those methods. The Institute's findings included the following:

- Distance education courses will continue to draw more and more students because the courses are available in remote places; they are flexible and convenient; and they are available when on-campus classes are full.
- The University should increase media advertising for distance education.
- Native organizations are a significant potential market for expanded distance education in rural areas.

"PARENTS WHO BELIEVED THAT COLLEGE WAS FINANCIALLY BEYOND THEIR REACH SOMEHOW COMMUNICATE TO THEIR CHILDREN THAT THEY ARE IN THE SAME SITUATION. IN ADDITION, IN COMMUNITIES WHERE LOW-EXPECTATION PARENTS ARE THE DOMINANT GENERATION, THERE IS LESS EXPECTATION FOR A HIGH QUALITY CURRICULUM IN THE SCHOOLS."

There are few states, if any, that have a greater need for distance education. According to ISER, about 60 percent of Alaskans live within 20 road miles of one of the three main UA campuses and another 25 percent live within 20 road miles of an extended site. In addition to the remaining 15 percent of Alaskans who live outside these boundaries, because of the harsh winter, many *within* the 20-mile boundary can have difficulties traveling to a campus or site.

ENCOURAGE MORE ALASKAN BUSINESS AND INDUSTRY INVOLVEMENT

This strategy directly addresses the workforce needs of Alaska. Business and industry have a large stake in improving access to higher education because of their need to hire people with critical analytical, communications, and problem-solving skills. This is particularly true in the areas of math and sciences, in part because of the growing reliance on technology. Over the past decade, international comparisons of achievement in math and science have shown that a majority of American students are relatively poorly prepared for higher education. These findings have spurred the federal government, states and local communities, labor unions, private businesses and professional societies to take concerted steps to improve math and science education at the elementary and secondary levels (Reinert, 1998).

The importance of business and industry and education cooperation and collaboration is reflected in a recent report by the Business-Higher Education Forum, a partnership of the American Council on Education and the National Alliance of Business (Business-Higher Education Forum, 1999). One obvious strategy for involving business and industry recommended by the Forum as a means of increasing access is to create state and local advisory boards of employers and educators who meet regularly to discuss issues of concern to both sectors.

The Alaska Human Resources Investment Council (AHRIC) convened a group of educators, government agencies, labor organizations, and private citizen volunteers, along with business and industry, and produced a five year strategic plan. Titled *Closing Alaska's Skills Gap*, the report contains the Alaska Unified Plan, which guides the over $60 million annual investment of public funds focused on providing employment education and job training. The principles developed for system change include connecting secondary and postsecondary vocational and technical education and providing more access to technical education and training through distance delivery.

One specific strategy that should be considered for easing the transition between high school and college, particularly in vocational areas, is the creation of a "2+2+2 program." The name of such a program is derived from a sequential educational program that begins with the last two years of high school, during which students follow a specific course of study, often in a technology

field. The program continues to the community college level in which students follow a prescribed field of study that builds on the high school curriculum. Upon completion of the two years at the community college, students can enter the workforce or enter the university to proceed to the baccalaureate degree. Companies can participate in this promising approach to increase access by playing an active role in designing the curriculum, implementing faculty and student internships and committing funds.

SUMMARY

In a recent article by Robert B. Reich, the former Secretary of Labor, wrote the following about access to higher education (Reich, 2000).

> ***A society concerned about widening inequality–and its corrosive effects on democracy, social solidarity, and moral authority of a nation–would logically turn its attention to increasing the supply of people capable of doing the work that the new economy rewards. It would, in particular, do so by broadening access to postsecondary education to children from lower-income families. Yet almost all of the increase in the proportion of 18-to-24-year olds in postsecondary institutions in recent years is attributable to children from middle- and upper-income families.***

The Strategies for Success that have been identified in this paper address access to higher education head-on. Although a portion of the strategies are targeted to students from low-income families–particularly the non-portable grant program–the recommendations are designed to increase access for *all* Alaskans. Accomplishing this goal is not the responsibility of only the Alaskan educational establishment. Improving access requires policymakers from all sectors of the Alaskan community to contribute. If they do, then more young Alaskans will gain the benefit of higher education, and that is good for everybody in the State. As one wag said, "In the space age, the most important space is between the ears."

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